

## OCCASIONAL NOTES.

### THE INDONESIAN NUMERALS.

In a pamphlet\* recently presented to the Straits Asiatic Society, Dr. T. H. PARDO DE TAVERA, of Manila, discusses the origin of the names of the numerals in the Tagal and (incidentally) in the other Indonesian languages.

The following short table will illustrate the wide area over which these or kindred numerals are used :—

	<i>Malay.</i>	<i>Maori.</i>	<i>Tagal.</i>	<i>Malagasy.</i>	<i>Formosa.</i>	<i>Fiji.</i>
1	Sa	Tahi	Isa	Iray	Sha	E-dua
2	Dua	Rua	Dalaua	Roa	Lua	E-rua
3	Tiga	Toru	Tatlo	Telo	Telu	E-tolu
4	Ampat	Wha	Apat	E-fatra	Pat	E-va
5	Lima	Rima	Lima	Dimi	Rimi	E-lima
6	Anam	Ono	Anim	Enina	Num	E-ono
7	Tujoh	Whitu	Pito	Tito	Pitu	E-vitu
8	Delapan	Waru	Walo	Valo	Waro	E-vala
9	Sembilan	Iwa	Siyam	Sivi	Iwa	E-siwa
10	Sapuluh	Ngahuru	Sangpulo	Tolo	Pulu	E-tini

The origin of these numerals is also discussed by the Rev. D. MACDONALD, of Efate, New Hebrides, in the Journal of the Polynesian Society for June, 1893.

Dr. PARDO DE TAVERA points out that the Indonesian numerals were originally substantives, such as "a couple," "a trio," "a dozen," rather than numerals in the ordinary sense of the word. In the languages of Timor Laut and Fiji the article is still used before these numerals. In the Pampango language (Philippines) it survives in *a-dua*, *a-tlo*, *a-pat*, *a-nim*, *a-pulu*. In Malay it is still used in *sa-puluh* and

\* "Consideraciones sobre el origen del nombre de los numeros en Tagalog"  
—Manila.

probably survives in *ampat* and *a-nam*. In some languages a second article has even been added when the first has become incorporated in the numerals.

Dr. DE TAVERA also draws attention to the quinary system upon which the original numbers were based doubtless owing to the convenience of using the hand in enumeration. The word *lima* or *rima* still means "hand" in many of the dialects of Formosa, the Malay Archipelago and Polynesia. The inhabitants of Triton Bay in New Guinea, of Santo, Efate and Ambrym in the New Hebrides, of the Island of Engano near Sumatra, and some of the wild tribes of Formosa still use quinary systems. The Malay *delapan* (8), derived by RIGG from *dua-lepan* (two turned down), takes us back also to a time when the fingers were used in counting. *Sa-lepan*, *Sembilan* (*sa-ambilan*), and the Achinese *Sa-kurang* (9) are all extensions of the same idea.

The etymologies suggested by Dr. DE TAVERA for the Philippine (and Oceanic) numerals are as follows:—

*Lua, dua, or rua* (2) from a root signifying a double or copy, as in the Philippine *ka-lu-lua*, a ghost.

*Telo, tolu, toru* (3) from a root signifying triple connected with *tali* a rope (triple strand).

*Pat, fa, ha* (4) from a Polynesian root signifying "a complete set," "a company." The Javanese *sa-kawan*, Hawaii *sa-kauna*, has these meanings.

These were the oldest numerals. For higher quantities the hand was used in enumeration.

*Lima, rima* (5) the hand.

*A-nam, ono, ne* (6). The root appears to be *ne*, but the meaning cannot be traced.

*Pitu, hitu, titu* (7) from an old Polynesian root *fia*, "three," and the root *tu* "to shorten" (*tua*, to shorten, Tahiti).

*Walo, varo* (8) from the Polynesian *wa* "a space," and *rua* or *lua* "two"; two spaces, *i.e.*, *dua-lepan*.

*Siam, siwa, iwa* (a), the "s" and "m" being accretions, from *wa* "a space," and the article "i."

*Pulo, fulu, hulu* (10) from a root meaning totality (*pulus*, all, Tagal.)

The Abbé FAVRE in his Dictionary is guilty of two errors in assuming *sa* "one," to be a contracted form of *suatu*, and *dua*, "two," to be derived from the Sanscrit *dwi*. *Suatu*, he subsequently admitted to be a corruption of *sa-batu*, as the Javanese *sa-wiji* or *siji* is a corruption of *sa-biji*.

The Rev. D. MACDONALD of Efate, New Hebrides, going further than Dr. PARDO DE TAVERA, suggests a Semitic origin for the Oceanic numerals. The theory is a very daring one, for the Oceanic languages with their simple constructions and soft syllables are utterly unlike the Semitic languages with their harsh consonants, elaborate grammar,\* and complicated vowel inflexions, and no ethnologists would be likely to support a theory that the Dyaks, for instance, are the lost ten tribes of Israel. The points also to which Dr. DE TAVERA has drawn attention combat this theory, for the Arabic numerals are not collective nouns, nor do they show any connection with quinary system.

The resemblances traced by Mr. MACDONALD between Oceanic and Semitic forms are not so clear as to necessitate his opponents explaining them away by any theory of coincidences.

The following table shows the "original forms" suggested by him, together with the nearest existing forms in the Semitic and Oceanic languages respectively:—

	<i>Original form.</i>	<i>Nearest Semitic form.</i>	<i>Nearest Oceanic form.</i>
1	'd'	Ihda (Arab)	Aida (Timor)
2	r'	Tarawah (Socotra)	Roa (Maori)
3	t'l'	T'laa (Syriac)	Telo (Malagasy)
4	'b't	Arbaat (Arab)	Bate (Efate)
5	k'm'	Khams (Arab)	Ikma (Aneit)
6	t'	Sitt (Arab)	Butanga (Gilolo)
7	b't'	Sabat (Arab)	Mbut (Malicolo)
8	l'p'n	T'man (Arab)	Delapan (Malay)
9	s'm	Esro (Syriac)	Siyam (Tagal)
10	s'n'	Eseru (Amharic)	Sarone (Timbora)

These resemblances hardly carry conviction. In fact the

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\* "There are thirty-three *ordinary* methods of forming the plural."—SOCIN'S Arabic Grammar.

attempt to connect *anam* with *sitt* by means of the word *butanga* is apt to recall the sarcasm of VOLTAIRE "pour Messieurs les etymologistes les voyelles n'y sont pour rien et les consonnes pour très peu de chose." The selection of the Malay "l'p'n" as an original root is singularly unfortunate in view of the well-known derivation of *delapan* from *dua lepan*. A reference to a table of Indonesian numerals will show that the forms selected are, in several cases, the exception rather than the rule. As for the Semitic numerals Mr. MACDONALD has been in one or two cases misled by the transliteration. The "t" in *t'laa* is not "t" (ت) but "th" (ث) and generally corrupts to "s" in other languages as *hari thalatha*, for instance, becomes *hari selasa*; *Othman* corrupts to *Osman*. The "k" also in *Khamis* is not the Indonesian "k" in *Ikma*. The Malay language contains some of the Semitic numerals in the names of the days of the week, but they do not corrupt to the forms suggested by Mr. MACDONALD.

It would be unsafe to base any arguments as to the origin or movements of the Indonesian races upon the resemblances between the numerals alone. The numerals, however, illustrate very fairly the theory of Polynesian migrations expounded by M. DE QUATREFAGES,\* in that they are used by the Melanesian tribes who lie along the routes which the migrating tribes from Ceram and Bourou are believed to have followed on their way to the South Seas. Mr. A. R. WALLACE, while unwilling to admit the common origin of the Indonesian and Polynesian races, fully recognised the remarkable similarity in language, a similarity, as he points out, of "words" not mere roots, and which he explains by suggesting that Malay traders must have visited the South Sea Islands. Of this, however, there is no historical evidence, and the primitive condition of the Polynesians when first visited by Europeans militates against the theory that they had commercial dealings with the comparatively civilised Malays. The resemblance in language cannot be a mere coincidence. Attempts have been made to minimize its extent and importance by writers who argue in favour of the Oceanic races being the relics of the autochthonous

\* "Les Polynesiens et leurs migrations"—by M. A. DE QUATREFAGES.



inhabitants of an old Pacific continent; but the connection between the Indonesian and Polynesian languages is now becoming more generally recognised. The numerals furnish perhaps the best illustration of this relationship. \*

R. J. W.

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\* The Indonesian numerals can be found in the following works, most of which are in the Society's Library:—

*Sumatra, Java, and Adjacent Islands.*—FAVRE's Javanese Grammar gives the numerals in Javanese, Kawi, Sundanese, Batak, Lampong, Madurese, and Balinese. The Nias Island numerals may be found in J. S. B. R. A. S., June 1880; and those for the Isle of Engano in Mr. MACDONALD's paper.

*Borneo.*—The numerals in 11 languages of Borneo are given in J. S. B. R. A. S., June, 1880.

*Celebes, the Moluccas, &c.*—The numerals in Bugis are given in FAVRE's Javanese Grammar. CRAWFURD gives the numerals in the languages of Manatoto, Timor, Rotti, Savu, Ende and Mangarai (Flores); while WALLACE (Malay Archipelago) gives them in 31 other languages of these parts.

*Philippines and Formosa.*—Prof. TERRIEN DE LA COUPERIE gives the numerals in 32 languages of Formosa and 7 of the Philippines. (Formosa Notes, J. R. A. S. 1886). To these may be added the numerals in the Tag-benua language (J. S. B. R. A. S., 1880).

*Micronesia and Melanesia.*—CRAWFURD (Malay Grammar) gives the numerals in 3 Micronesian languages, Mr. McDONALD gives them in 4 languages of the New Hebrides, and Dr. DE TAVERA in one language of New Guinea and in the language of Timor Laut.

*Polynesia, Madagascar and Fiji.*—The numerals in 9 Polynesian languages, in Fijian and in Malagasy are given in TREGAR'S "Maori Comparative Dictionary."

Total—including Malay—119 languages.